



## Patent Abstracts of Japan

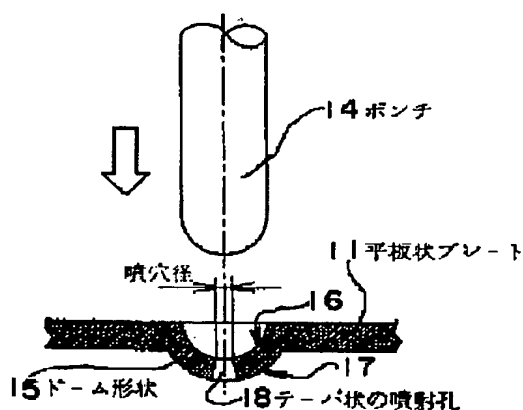
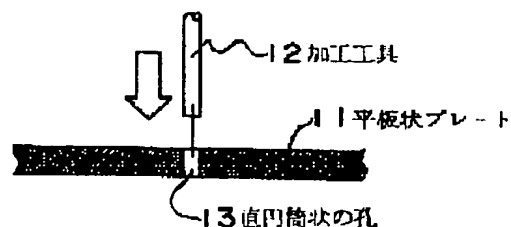
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TITLE : FORMING METHOD FOR INJECTION  
 HOLE OF FUEL INJECTION VALVE



ABSTRACT : PURPOSE: To form an injection hole of good injection performance high accurately and stably by machining a right cylindrical hole in a flat shaped plate of separate unit from a nozzle main unit of a fuel injection valve, thereafter deformed into a tapered injection hole by drawing working a peripheral part of this right cylindrical hole into a dome shape having prescribed curvature.

CONSTITUTION: In order to form an injection hole 18, first relating to a flat- shaped plate 11 of separate unit from a nozzle main unit of a fuel injection valve, a right cylindrical hole 13 is worked to pass through in a plate thickness direction by a right cylindrical working tool 12. Next by using a punch 14, a peripheral part of the hole 13 in the flat-shaped plate 11 is processed by drawing work into a dome shape 15 having prescribed curvature. By a difference between radii of curvature in a small radius of curvature side 16 and a large radius of curvature side 17 of the dome shape 15, the right cylindrical hole 13 is deformed into a tapered injection hole 18. Successively, a peripheral plane part of the dome shape 15, after forming a mounting seat, is separated from a streak material to form a nozzle plate. In this way, the injection hole 18 of cone sectional shape with good injection performance is formed stably and high accurately.

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